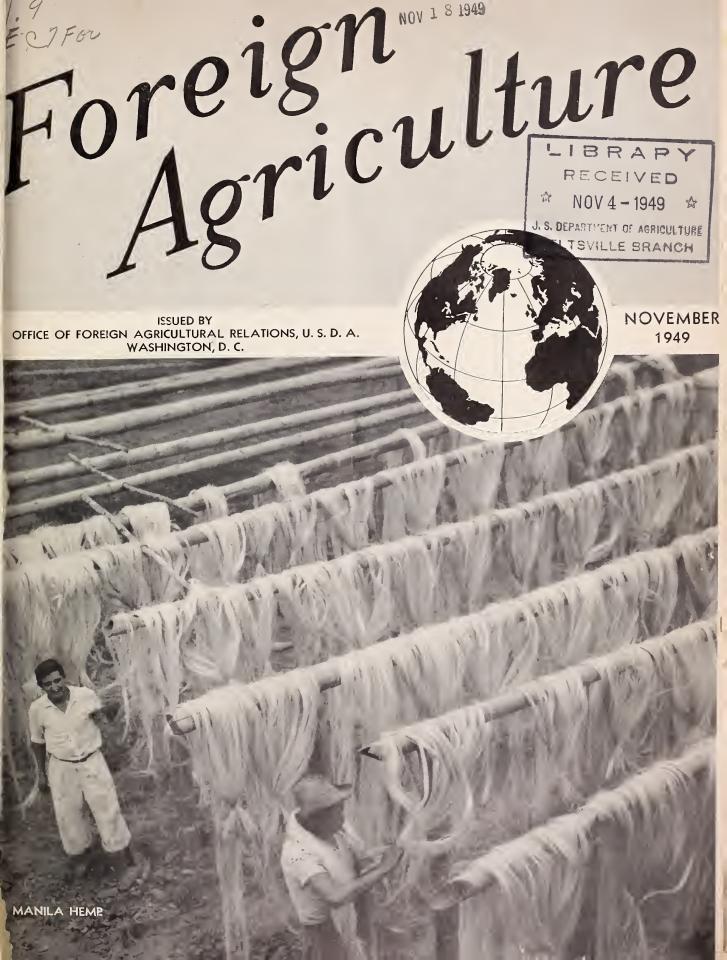
### Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.





## Foreign Agriculture

Vol. XIII • NOVEMBER 1949 • No. 11

#### IN THIS ISSUE

	Page
FAO Schedules Fifth Annual Conference	243
Agriculture in the Annecy Agreements on	
Tariffs and Trade	244
Manila Hemp Production-A Problem for	
the Filipinos	249
ERP Aids Europe's Farmers	
Postwar Shifts in U. S. Agricultural Export	
Trade	256
First International Sesame Conference	258
Italian Cooperative Cold-Storage Plant	260
Pasteurized Milk Produced in Portugal	262
International Agricultural News	262

#### FRONT COVER

#### Drying Manila Hemp in Ecuador

Other areas of the world are now threatening the Philippine Islands' traditional monopoly of Manila hemp production.

#### BACK COVER

#### Map of the Philippine Islands, Showing Manila Hemp (Abaca) Acreage, 1938, and Production by Areas, Average 1934–48

As a result of World War II, Manila hemp acreage and production in the Philippines fell far below prewar levels. Many plantations are still in poor condition, and production last year was less than half that of 1934–38.

Credit for photos is given as follows: Philippine Embassy, p. 249; Cord Age, pp. 250, 251; ECA, pp. 254, 255; and Ferrara Province Consorzio Agrario, p. 260; Vanguard Enterprises, p. 263, col. 2.

#### **NEWS NOTES**

#### Cotton Specialist Studies African Situation

P. K. Norris, international commodity specialist and authority on world cotton production and trade, has arrived in Cairo on an assignment to conduct a yearlong study of present and potential cotton-growing areas in a dozen African countries. Mr. Norris will be attached to the American Embassy at Cairo.

Because of the interest shown by some leading cotton-consuming countries of Europe in expanding cotton production in these African territories, this survey of the situation as it may affect the market for United States cotton was undertaken under the Research and Marketing Act.

#### Mr. Thompson Goes to Europe For Dry Beans and Peas Study

Judson A. Thompson, Marketing Specialist, has recently arrived in Europe where he will make a 2-month study of the market outlook for United States edible dry beans and peas. This survey is being conducted under the Research and Marketing Act.

#### Dr. Starr to Return Soon from Colombia

Mortimer P. Starr, Pathologist of California's College of Agriculture, will soon return from a 3-month stay in Colombia. He has been on loan to the Department's Technical Collaboration Branch, working with scientists at the Facultad de Agronomía to control a disease threatening Colombia's most important pasture grass, Imperial. Dr. Starr has also been assisting Facultad officials in their efforts to develop and strengthen their pathology department. This is a particularly noteworthy aspect of his assignment since the Facultad is becoming an increasingly important regional agricultural college for Central and South American countries.

#### FOREIGN AGRICULTURE

ALICE I. FRAY, EDITOR

A monthly publication of the Office of Foreign Agricultural Relations of the United States Department of Agriculture, Washington, D. C. The matter contained herein is published by direction of the Secretary of Agriculture as administrative information required for proper transaction of the public business. The printing of this publication has been approved by the Director of the Bureau of the Budget (November 6, 1947). Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 15 cents per copy, or by subscription at the rate of \$1.50 per year, domestic; \$2.00 per year, foreign. Postage stamps will not be accepted in payment.

### FAO Schedules Fifth Annual Conference



The Food and Agriculture Organization of the United Nations will hold its fifth annual conference this month, in Washington. Top-ranking agricultural officials from the 58 member

countries are expected to be present at the  $2\frac{1}{2}$ -week session, which opens November 21.

This session of the Conference originally was scheduled for Havana, Cuba. When it was learned, however, that the costs would be much greater than was indicated by the hurried estimate made during last year's conference, it was decided to again hold the meeting at FAO headquarters in Washington.

Among leading subjects up for discussion are the International Commodity Clearing House proposal, the Point Four Program, and the permanent site for FAO headquarters. Considerable interest has been focused on the Clearing House proposal, designed to move agricultural surpluses from producing to deficit areas.

The Conference will again be divided into three commissions—Commission I to handle the review of the world food situation and needed action, Commission II to discuss FAO's Program of Work for 1950 (including its Point Four Program), and Commission III to discuss the budget for 1950 and other administrative matters, including the permanent site for FAO headquarters.

#### International Commodity Clearing House

The new proposal for an International Commodity Clearing House (ICCH) to help move agricultural surpluses to needy areas was made by a committee of experts selected by the Director General of FAO to study the problem of surpluses and to make recommendations.

The Clearing House would work in either of the following ways:

1. A surplus could be sold through ICCH to an importing country at *full price*, payable in the currency of the importing country even though it should be inconvertible. ICCH would hold the currency to the credit of the exporter until enlarged trade or restored convertibility permitted clearing the account.

2. A surplus could be sold through ICCH to an im-

porting country at a reduced price for an immediately acceptable currency.

Nations would call on ICCH only to make purchases or sales in addition to their regular commercial transactions.

Furthermore, ICCH would be available as a negotiating center for commodity exchanges or commodity agreements. It might also hold commodity stocks for temporary periods to cushion price changes.

ICCH would have a \$5 billion capital to be subscribed by FAO member nations. Twenty percent would be paid in initially to provide a revolving fund. The remainder would be subject to call for use in purchasing commodities in the contributing countries for sales against inconvertible currencies.

#### Point Four

Another subject of special interest scheduled for discussion at the Conference is the Point Four Program. Earliest consideration will probably be given the proposed broad international plan of technical assistance prepared by the FAO secretariat at the request of the United Nations Economic and Social Council. This plan would be complementary to the bilateral program of technical assistance carried on by the United States and other countries.

#### FAO Site

Since its organization, FAO has been headquartered in Washington until a permanent site could be selected. At last year's conference the choice was narrowed to two United States cities, New York and Washington, and to two European cities, Copenhagen and Rome. This year, several Swiss cities are also under consideration.

The United States Congress is considering a bill that would permit the United States to lend FAO \$7 million, interest free, to construct a headquarters building either in the Washington or the New York areas. This legislation would provide free land in Washington, UN has offered a site at its New York headquarters, and the University of Maryland has offered one on its campus. Denmark and Switzerland have also offered free land and a construction fund, and Italy, a rent-free building.

### Agriculture in the Annecy Agreements on Tariffs and Trade\*



On October 10, the Annecy Protocol of Terms of Accession to the General Agreement on Tariffs and Trade was opened for signature at Lake Success. This was the end product of a confer-

ence held at Annecy, France from April 8 to August 27, 1949.

The General Agreement on Tariffs and Trade (GATT) began at Geneva in 1947 when the countries appointed by the United Nations to draft a charter for an International Trade Organization (ITO) decided to go ahead with the reduction of trade barriers among themselves while awaiting the establishment of the ITO. At Annecy, 10 new countries joined the ranks of the original 23.

A fourth meeting is now planned for Geneva in the latter part of 1950 at which other countries may join, or, as the GATT language puts it, "accede."

The GATT, in addition to new tariff schedules, contains various provisions governing the conduct of participants as concerns such matters as quotas, export subsidies, and other nontariff matters affecting trade. These provisions are modeled after the corresponding points in the ITO Charter, now before the United States Congress and the legislative bodies of many other countries for ratification. The General Provisions of GATT are provisionally applied for the time being, GATT participants putting them into effect only to the extent possible without conflict with existing legislation.<sup>1</sup>

\*Prepared by George B. Rogers, Bureau of Agricultural Economics, in consultation with the other USDA members of the U. S. Delegation to the Third Session of the Contracting Parties to the General Agreement on Tariffs and Trade: Lucille Corder, Floyd E. Davis, Robert B. Schwenger, OFAR, and Lionel C. Holm, PMA. (In addition to the foregoing, there were assigned to the Agricultural Delegation two members of the Foreign Service, Fred A. Motz and Howard R. Cottam.)

<sup>1</sup> The ITO Charter has as its over-all purpose to "establish and maintain by mutual agreement, an 'open' or multilateral system of trade relations between members of the organization, and to expand on businesslike principles the trade of each member with all other members. The opposite state of affairs calls for numerous 'closed' economies, each of which conducts foreign trade under strict governmental control in accordance with short-term agreements based on planned 'barter' with

At Annecy the United States concluded trade agreements with each of the 10 acceding countries: Denmark, the Dominican Republic, Finland, Greece, Haiti, Italy, Liberia, Nicaragua, Sweden, and Uruguay. These agreements are expected to go into effect early in 1950 after ratification by the countries involved. The tariff rates in the new agreements will replace those now on the books, including those rates established in trade agreements in earlier years. The United States participates in GATT under the authority granted the President by the Reciprocal Trade Agreements Act, originally passed in 1934 and last renewed in September 1949.

The procedure under which the United States prepares for the negotiation of reciprocal trade agreements, pursuant to the above act, is probably somewhat more elaborate than that followed by other countries. Public lists are prepared from the requests submitted by other countries and by examination of the United States tariff for negotiable items. The issuance of public lists is followed by public hearings at which interested parties may present their views. Various "country committees" composed of representatives from the various interested Federal agencies examine this testimony and other available data and prepare lists of suggested concessions that they believe the United States can offer without endangering domestic industries.

Also prepared at the same time are lists of tariff concessions, which it is proposed that the United States

politically selected countries. The United States has traditionally favored the open or multilateral system as opposed to this bilateral approach. Many other countries share our objective as indicated, for example, by their pledges in Article VII of the lend-lease agreements out of which the present Charter grew through a series of international conferences."

"This purpose of the Charter is reflected in three 'key' provisions of Chapter IV to which members agree to grant equal treatment to each other with respect to tariffs and other foreign trade matters (article 16); to reduce tariffs on a selected basis (article 17); and to refrain from using quantitative restrictions, i. e., quotas, on imports or exports to protect particular industries from competition or for other purposes detrimental to international trade (article 20)."

For a fuller discussion of the Charter, see the source of the above quotations: *Havana Charter for an International Trade Organization*, the U. S. Department of State, March 24, 1948.

request from foreign countries. These suggestions are channeled through the Committee on Trade Agreements, an interdepartmental group composed of one member from each of the following departments: State, Economic Cooperation Administration, Commerce, Labor, Treasury, National Military Establishment, and Agriculture. Agriculture, like other agencies on this Committee, has one vote on all matters, agricultural and otherwise. Following action by the Committee on Trade Agreements on both United States offers and requests, they are transmitted to the President for approval. Matters of controversy are settled at Cabinet level. These decisions then become the secret instructions of the United States Delegation. No United States tariff rate can be reduced in negotiations to a level less than 50 percent of that in effect on January 1, 1945.

In preparation for Annecy, there were certain additional provisions required under the Reciprocal Trade Agreements Act of 1948. These required the United States Tariff Commission to establish "peril points" on each item within 120 days after the issuance of public lists of items on which the United States was considering negotiating with specified foreign countries. If the President authorized an offer below a "peril point," he was required to report the reasons for his decision to Congress. The "peril point" provision was dropped in the Trade Agreements Extension Act passed by Congress during the 1949 session and approved by the President September 26. The Tariff Commission has also been restored to membership on the Trade Agreements Committee along with the other agencies named above.

Within the Department of Agriculture itself, there has been established a Department Committee on Foreign Relations upon which the interested agencies of the Department are represented. This Committee instructs Department representatives on the "country committees." Later it reviews the "country committee" recommendations and instructs the Department of Agriculture representative on the Interdepartmental Committee on Trade Agreements.

The United States Delegation to a tariff conference, such as that at Annecy, is composed of the Committee on Trade Agreements and advisers, observers, commodity and linguistic specialists, stenographers, and clerks from the various Federal agencies. The Department of Agriculture sent a number of advisers. One of these advisers served as a member of each negotiating team, and the group was available to the Delegation for consultation on agricultural and policy matters.

The procedure for the determination of negotiable items prior to actual tariff negotiations gives an indication of the types of commodities upon which the United States may be asked or may be willing to offer concessions; that is, traditional export commodities and a limited number of potential export items. The same types of items appear on the request lists that the United States submits to foreign countries.

One would thus expect, for example, that insofar as agricultural items are concerned, Denmark would place major emphasis on meat and dairy products; Italy on lemons, cheese, olive oil, and cherries; Greece on figs, olives, and olive oil; Uruguay on canned meats and hides; and the Central American countries on tropical products. The United States, on the other hand, might be expected to place major emphasis on such items as wheat and wheat flour; cotton; tobacco; processed dairy products; fresh, dried, and canned fruits; nuts; and lard. Products such as those named, plus a substantial number of specialty items, do in fact constitute the types of agricultural products covered by the results of the Annecy negotiations. In working toward freer trade, major products that have historically had an important position in a country's export trade must be presumed to be those in which it has the greatest comparative advantage.

Some of the economic factors that, from a practical standpoint, are considered in determining whether concessions on individual items will be made, and the extent of any concessions, are as follows: (1) The "principal supplier" rule; 2 (2) developments in the domestic agricultural program; (3) price support obligations; and (4) the degree of competition and substitutability between individual commodities in the domestic market.

Among the agricultural concessions obtained by the United States at Annecy <sup>3</sup> were the following:

WHEAT: Bindings free of duty granted by Denmark

<sup>&</sup>lt;sup>2</sup> In general, an individual item is negotiated under GATT with the country that is the major or a major supplier of the item to the other negotiating party.

<sup>&</sup>lt;sup>3</sup> For more complete information and analysis, see the following:

<sup>(</sup>a) The Annecy Protocol of Terms of Accession to the General Agreement on Tariffs and Trade, United Nations, Lake Success, N. Y., October 10, 1949.

<sup>(</sup>b) Analysis of Protocol of Accession and Schedules to the General Agreement on Tariffs and Trade—Negotiated at Annecy, France, April-August 1949, U. S. Department of State, October 1949.

<sup>(</sup>c) Release of Office of Foreign Agricultural Relations, U. S. Department of Agriculture, on agricultural concessions at Annecy, October 1949.

and the Dominican Republic; binding of duty by

Greece; duty reduction by Italy.

WHEAT FLOUR: Bindings of duty by Nicaragua, the Dominican Republic, and Liberia; duty reduction by Greece.

RICE: Bindings of duty by Sweden, Denmark, and Liberia.

OAT PRODUCTS: Binding of duty by Haiti; duty reductions by Nicaragua and the Dominican Republic.

COTTON: Bindings free of duty by Sweden, Denmark, and Finland; bindings of duty by Greece and the

Dominican Republic; duty reduction by Italy.

Tobacco products: Binding free of duty by Italy (leaf); Finland assured equitable treatment to United States tobacco; bindings of duty by Denmark (leaf), Liberia (cigarettes), and Uruguay (leaf, cigarettes); duty reductions by Liberia (leaf, cigars) and the Dominican Republic (leaf, shredded).

LARD: Binding of duty by Haiti; duty reductions by

Italy and Finland (with quota).

DAIRY PRODUCTS: Bindings of duty by Liberia (condensed, evaporated, dried milk), Haiti (chcese, butter, evaporated, condensed, powdered, malted milk), and Nicaragua (general rates on condensed milk or cream, dried whole or skim milk or cream); Greece (bound metallic drachma rate on whole dried milk and nonfat dry milk solids, but can convert to 10 percent ad valorem, lower than prewar a. v. e.); duty reductions by Nicaragua (from general rate on evaporated milk or cream) and Greece (reduced metallic drachma rate on condensed or evaporated milk, but can convert to 10 percent ad valorem, lower than prewar).

Apples: Bindings of duty by Sweden (July 1 to January 31), Denmark, Haiti, and the Dominican Republic; duty reductions by Sweden (free entry February 1 to June 30) and Uruguay (October 1 to February 15); Finland established 15 percent ad valorem duty

December 1 to June 15.

Pears: Bindings of duty by Sweden (July to November), Denmark, Haiti, and the Dominican Republic; duty reduction by Sweden (free January 1 to June 30, increased December rate); Finland established 15 percent ad valorem duty entire year.

Grapes: Bindings of duty by Haiti and the Dominican Republic; duty reduction by Sweden (July to December); Finland established 10 percent ad valor-

em duty.

DRIED FRUITS: Binding free of duty by Sweden; bindings of duty by Denmark, Haiti, and Uruguay; duty reduction by Italy; Finland set 7½ percent ad valorem on prunes, raisins, and currants and 15 percent on apples, pears, apricots, peaches, and mixed.

Canned fruit products: Bindings of duty by Sweden (pineapple, grapefruit), Denmark (pineapple, citrus juices), Haiti (preserved fruits), and Uruguay (sweetened fruit juices); duty reductions by Sweden (peaches, apricots, pears, salad, citrus juices), Denmark (peaches, apricots, apples, pears, pineapple, citrus fruits, citrus pulp), the Dominican Republic

(canned temperate fruits), and Uruguay (unsweetened fruit juices except grape and citrus). Finland established 25 percent ad valorem on canned fruits and juices.

Among the agricultural concessions made by the United States at Annecy were the following:

Bindings free of duty: Inedible olive oil (Greece); crude rubber, palm oil, palm leaf fiber (Liberia); ipecac and various woods (Nicaragua); certain wood pulps (Finland); dried blood, bones, animal carbon, tankage (Uruguay).

BINDINGS OF DUTY: Emmenthaler cheese (Denmark); sugar (Dominican Republic); Gruyere process cheese (Finland); cherries (Italy); canned meats, prepared or preserved meats, casein (Uruguay); fil-

berts (Italy).

REDUCTION IN DUTY: Butter and blue-mold cheese (Denmark); liquid sugar and industrial molasses (Dominican Republic); rum, prepared or preserved guavas, tropical fruit jellies and jams, mangoes, mango and guava paste and pulp, candied, crystallized, or glace pineapple (Dominican Republic, Haiti); cigar leaf (filler) and scrap tobacco (Dominican Republic); cigarette leaf tobacco, olive oil, olives, figs, currants (Greece); olive oil, various cheese products, canned tomatoes and sauce, vermouth, lemon oil, lemons (with quota) (Italy); crude balsams (Nicaragua); certain plywoods (Sweden, Finland); meat extracts, canned beef (minimum ad valorem only), cattle hides (Uruguay); various fruit peels (Italy, Haiti).

In addition to the discussion of tariff rates with the acceding countries, the Contracting Parties met at Annecy to consider matters that had come up in connection with the Geneva agreement of 1947. A number of minor adjustments in concessions made at that time were adopted. Consideration was also given to cases where particular Contracting Parties felt that it was necessary to maintain quota controls. The problem of commodity agreements was discussed, particularly with reference to the development of that approach to meet the impending need accentuated by the weakening of world commodity prices.

The Annecy tariff negotiators were confronted with several rather difficult negotiating problems, which contributed not only to lengthening the Conference several weeks beyond the date by which it was originally intended to terminate, but also toward determining the scope and nature of the agreements concluded. Several countries where there had been currency depreciation or other fiscal difficulties in recent years came to Annecy prepared to negotiate not from an existing applied tariff but from a proposed new schedule not yet approved by their own legislative

bodies. This involved the negotiators, where the proposed tariffs were unduly high, in lengthy exploratory discussions to find a more suitable basis upon which negotiations might begin, and postponed item-by-item discussion pending establishment of certain basic principles acceptable to both sides.

In the case of Colombia, full agreement on a basis for negotiation was not reached in time to conclude negotiations by the end of the sessions. Negotiations with Italy finally took place on the basis of prewar ad valorem equivalents of existing duties, rather than on the draft new tariff prepared by the Italian Government preceding the Conference. The existing tariff was made meaningless by currency devaluation. Duties charged by Nicaragua on imports from the United States and the United Kingdom (the two principal sources of Nicaraguan imports) before the Conference were considerably lower than the general rates that applied to the smaller imports from other countries. Nicaragua considered its offers to the United States to be in the light of the latter higher rates.

Another problem was adjustment for currency depreciation and internal price inflation when negotiations were on existing specific rates. In general under GATT, such matters have been allowed for only to the extent that there has been actual official devaluation of the currency involved. Even this much allowance has sometimes resulted in higher duties than the legislative bodies of the countries involved were willing to accept. At Annecy, there was a general inclination on the part of a number of the acceding countries to ask for tariff adjustments upward to cover both currency depreciation and price increases.

In the case of Greece, adjustment for changes in the incidence of specific tariffs was made by the establishment of a multiplier designed to reflect changes in the value of the paper drachma as related to the metallic drachma. Finland met the problem by converting practically all of its duties on agricultural, and a large number of its industrial, items to an ad valorem rather than a specific duty basis.

Another problem was preferences. Countries enjoying a preference generally want compensation for giving it up even though the negotiations regarding the preference necessarily have taken place between two other countries. At Annecy the reduction of the United States duties paid by a number of acceding countries involved reductions in preferences, mainly those enjoyed by Cuba.

One of the primary problems in negotiations from

the agricultural standpoint was to attempt to maintain a reasonable balance between concessions obtained on industrial and agricultural items. Inasmuch as agriculture is usually the starting point for the development of self-sufficiency programs, both those of supposedly short-run nature to conscrve scarce dollars and those with longer-range objectives, many countries were extremely reluctant to grant meaningful concessions.

All tariff agreements concluded between countries under GATT become multilateral by generalization. That is to say, rates negotiated between any two countries are incorporated in a general schedule and are thereby applicable to all member nations. For example, tariff rates in the United States—Swedish agreement—concessions made by the United States to Sweden and by Sweden to the United States—apply to the same goods entering the United States or Sweden from any of the other GATT countries. Likewise, the United States or Sweden receives comparable treatment on goods covered in the agreement between the United Kingdom and Uruguay.

This characteristic of GATT agreements has several important effects: (1) New members are encouraged to join GATT to obtain preferential rates on items upon which negotiations have already been carried out; (2) with certain exceptions written into the original GATT protocol-for example, British Empire and United States-Cuban preferences—multilateral tariff agreements minimize the application of discriminatory tariffs; and (3) it permits countries to confine actual negotiations with each other largely to items of which they are principal suppliers. Generalization also presents at least two major negotiating problems: (1) Obtaining sufficient tariff concessions from new countries to compensate both for direct concessions being offered and for indirect benefits which that country will obtain by generalization, but upon which it would undoubtedly place stress were the negotiations strictly bilateral in application, and (2) convincing new countries of the stability of GATT in order that cach new country will accord generalization its full worth in bargaining but not insist on receiving each concession "in its own right." In the case of the United States, the "most-favored-nation" clause provides that the United States will extend to all countries which do not discriminate against United States exports the same preferential treatment accorded any other country.

Few oppose increased trade, but many are fearful of too rapid tariff reductions. It is obvious that the reduction of trade barriers is a two-way street. The United States tariff, due to passage of the Smoot-Hawley Act of 1930, was relatively high at the time the Reciprocal Trade Agreements program began. Nevertheless, actions taken since that time have reduced the average United States tariff to low levels.

Certain other countries of the world have low average duties, amounting on most items merely to "revenue" tariffs.4 Others insist on maintaining higher tariff levels to protect various domestic industries, which now exist or which they plan to develop. There has been a fairly general development of sentiment for protective tariffs associated with such ideas as national security, economic development, self-sufficiency, and the dollar shortage. In the case of a number of countries, such as many of those in Central and South America, tariff receipts constitute a major part of government revenue. In these countries, until other means of taxation such as sales and income taxes are developed and substituted, there is resistance to the lowering of customs tariffs. This appears to have been a stage in the evolution of the fiscal policy of many nations.

Indeed, the removal of tariff barriers might well be approached with a degree of caution from the standpoint of the sociological problems that rapid elimination might create. The short-time economic consequences of the displacement of capital and labor from industries previously protected argues for gradual, rather than rapid, reduction of tariff barriers to permit an orderly transition toward greater specialization in those enterprises where comparative advantage is greatest. Few governments could cope with such problems were tariffs removed entirely in one stroke.

Some of the other existing barriers to trade in the world today are a continuation and extension of those built up during the years before World War II. Such things as quotas, licenses, and excise taxes have been heaped on top of tariff barriers. Added to these, certain new problems have come into focus since the end of hostilities—the lack of convertibility of currencies, the shortage of dollars abroad, and the efforts of countries to become self-sufficient. In the latter instances, many countries have embarked upon development programs because sources of supply were cut off in wartime and the peace of the world does not yet seem secure. Others stress industrialization and the development of raw materials production without regard to the conomic law of comparative advantage.

There are also existent state trading monopolies, both those that are practically complete regulation of foreign trade of a country, as in the case of the Soviet Union, and those that are partial in nature, such as the United Kingdom arrangements for many food imports, and monopolies in many countries for tax purposes on individual commodities, such as tobacco products. State trading monopolies not only take out of the hands of individual firms many foreign commercial transactions but also may be used as devices for maintaining domestic price levels or for establishing competing prices in world markets through subsidies.

Faced with these developments in the world, United States policy since the end of World War II has been directed largely to the relaxation of intervention by governments for protectionist purposes. In the trade agreements program, this has aimed at the maximum reduction of duties and subsidies and the gradual elimination of quantitative trade controls and various financial restrictions.

The GATT, as an international instrument to reduce trade barriers, has become an integral part of United States trade policy. In the long-run view, it can contribute materially to the promotion of increased trade between nations. In the short-run, however, such problems as the dollar shortage, the lack of free convertibility of currencies, the major importance of tariff revenues in fiscal policy in certain countries, and agricultural and industrial development programs of nationalistic design run counter to carrying out the principles of GATT. At the present time, such factors postpone the enjoyment by United States products in many countries of the tariff concessions obtained by the United States through negotiation.

The GATT program and the ITO Charter look beyond the present situation to the time when a sufficient degree of recovery and reconstruction from the effects of World War II shall have been achieved and when improved fiscal policies will permit the removal of most of these existing temporary barriers to commerce between nations. Even though progress may be slow in working toward the objectives of lowered tariff barriers and freer trade between nations, such a program is economically sound. It is essential if world trade is not to be almost completely dominated by government controls. One might compare such programs to the construction and greasing of the ways by which the repaired ship of commerce may proceed down to sail once again.

<sup>&</sup>lt;sup>4</sup> A tariff of 10 percent or less ad valorem is usually considered a "revenue" tariff, although in some cases such a tariff may be seriously restrictive to trade.

# Manila Hemp Production —A Problem for the Filipinos\*

The Philippine's long-time hold on the world's Manila hemp supply is threatened today as social and economic conditions impede recovery of the war-damaged industry.

#### by JOHN C. HOBBES



Manila hemp has traditionally been a monopoly of the Philippine Islands and an important segment of their economy. Its cultivation was en-

couraged by the earliest Spanish settlers. For many years the large trade in hemp provided farmers with a cash income, the Government with revenues, and the country with foreign exchange. With World War II, however, this picture changed somewhat. As a result of the poor condition of plantings, inefficient and abusive production methods, and shortage of capital, production and trade have fallen far below prewar levels. The whole economy has suffered, and the Philippine hold on the world hemp market is being challenged.

There are numerous places throughout the world where hemp can be produced, but, since it is native to the Philippines, that area has had an advantage. Before the war, practically all of the world's supply of Manila hemp was grown within a narrow region running along the eastern edge of the Philippine archipelago.

Demand for this product has always been great. Because of its strength and resistance to water, it is especially valuable in the manufacture of rope for industrial and marine use.

Manila hemp is the fiber of the abaca plant, which is closely related to the banana family in appearance and in many other characteristics. The fiber is extracted from the long sheathlike leaves that form the stalks of the abaca plant. Abaca demands a climate with high rainfall evenly distributed throughout the year and a well-drained alluvial soil. The most profitable production calls for planting on virgin land. Propagation is usually by suckers or rhizomes. The plant matures in 2 to 3 years, reaching the peak of commercial production in 7 or 8 years after which output

declines. Replanting becomes advisable after 12 to 15 years.

#### Prewar Situation

In 1939 abaca was grown on 722,000 acres, 7.4 percent of the cultivated area of the Philippines, and was surpassed only by coconuts, rice, and corn. The fiber was grown as a cash crop by 155,000 farm families, and about 2 million people were directly or indirectly concerned with its production. It provided the Government with revenue averaging \$1 million annually. Moreover, abaca fiber has been an important export item for many years. Between 1898 and the late 1930's, Philippine abaca exports grew from 27,140 tons to around 170,000 tons. In the latter period, these exports accounted for 97 percent of the world's supply. The value of the average annual exports of



Loose hemp ready for shipment. Nearly all the world's hemp came from the Philippines before the war.

<sup>\*</sup>Much of the information for this article was supplied to the Department of Agriculture by C. A. Boonstra, Hubert Maness, and Douglas Crawford, who served at various times as Agricultural Attachés in Manila.



Harvesting abaca on a Philippine plantation.

cordage and fiber from 1935 to 1940 was about 14 percent of the total value of all Philippine exports. In this respect, abaca was exceeded only by sugar and coconut products. This fiber was, therefore, a significant source of foreign exchange.

The prewar planted area of 722,000 acres was widely distributed throughout the Islands. Abaca is reported in all but 10 of the 49 Philippine provinces. Production was centered, however, in 3 distinct geographical regions—the Bicol region (the provinces of Albay, Camarines Sur, and Sorsogon on southern Luzon), the Eastern Visayan Islands (Leyte and Samar), and the province of Davao. In 1938, Bicol had 42 percent of the planted area but produced only 22 percent of the total weight of Philippine production and slightly less than 22 percent in point of value. The Eastern Visayan Islands had 12 percent of the planted area, produced 13 percent of the total weight but only 9 percent of the total value. Davao, on the other hand, with only 28 percent of the planted area claimed 47 percent of the total weight of Philippine production and 56 percent of the value. The relationship between the planted area of Davao and the value of its product reflects the high yields and the high quality of the fiber obtained. Since 1915, production in Davao rose from 3.4 percent of the Philippine total to more than 53 percent in 1940. Conversely, production in other areas declined from almost 97 percent to less than half of the total. The explanation for this change lies in the high yields of high-quality fiber obtained at low costs in Davao by the use of scientific production methods.

Production of abaca fiber in Bicol and Visaya was characterized by typical peasant methods. Farmers were lacking in skill and financial resources. Tenancy in these regions, though not as high as elsewhere in the Islands, was fairly widespread. About 30 percent of all farmers were tenants and many more were only part owners. The conditions of tenure were rather severe, the landlord usually taking more than half the crop as rent. Abaca was grown on about half the farms in Bicol and on a little more than a fifth of those in Visaya. In 1939 the average size of all farms in Bicol was 12.8 acres and in Visaya, 7.6 acres. The cultivation of abaca was carried on as a sideline and had to compete with other crops for the care and labor of the farmer. The tools used and the practices followed were quite crudc. The plants were set out in spare corners and hedgerows on old land with little thought given to such considerations as drainage, fertilizing, and spacing. Stripping the fiber from the stalk, the costlicst element of production, was done by hand, generally yielding fiber of nonuniform grade. In Bicol the average annual yield was from 100 to 275 pounds of fiber per acre and in Visaya, around 500. The low yields, improper stripping, and subsequent mishandling resulted in low-quality fiber obtained at high cost. The fiber of these areas faced the competition of the higher-quality, low-cost product of Davao and consequently production declined. The marketing process was such that growers were placed at a disadvantage. They were generally in debt to the local merchant to whom they were obligated to sell their produce at a low price from which usurious interest rates were subtracted. The farmers' ignorance of grades and market conditions increased their helplcssness. The small returns for their labor did not adequately reward growers for their effort. Abaca fiber may have been important to the Philippines, but it was not of such importance to the small grower. He was not, therefore, much concerned with its cultivation. This too had a depressing effect on production in Bicol and Visaya.

The prewar status of the industry in Davao stood out in sharp contrast to that in other areas. Since the beginning of the century, when Japanese were brought in as laborers, the Japanese expanded their influence to the point where they dominated the industry. During the depression of the early 1920's, they contrived to take over many plantations owned by Americans,

Mr. Hobbes is Regional Specialist, OFAR.

Spaniards, and Filipinos. Moreover, their control was extended by the use of leases, dummy corporations, and other subterfuges so as to exceed the area legally accorded aliens.

In 1939, abaca was raised on about 73 percent of the farms in Davao and was planted on 54 percent of the cultivated land. The average-size farm was about 30 to 32 acres. The Japanese controlled, directly and indirectly, about four-fifths of the prewar planted area of approximately 173,000 acres. The remainder was divided among Americans, Spaniards, and Filipinos. It is reported that around one-third of the farmers were tenants. This figure is unreliable since an undetermined number of owners leased their farms to the Japanese and in effect became tenants on their own land. Also, a large part of the Japanese-owned land was tenant-operated. As landlords the Japanese were generally more benign than the Filipinos. Contracts usually required farmers to follow precisely the instructions of Japanese supervisors and to pay 10 to 15 percent of the crop as rent. This was a small percentage compared with the demands of native landlords elsewhere in the Philippines, but the supervision of the Japanese helped tenants to obtain yields so high that the 10 to 15 percent demanded as rent exceeded the 50 percent paid as rent in Bicol and Visaya. This arrangement was profitable to both tenant and landlord.

The cultivation of abaca in Davao, whether under the Japanese or Americans, was by systematic, progressive methods. Only virgin land, carefully analyzed as to fertility and drainage, was used. Plantations were laid out with careful regard to spacing and were properly fertilized and drained. Quick-growing legumes or food crops were often planted to check erosion and the growth of weeds or to provide food during the 2 or 3 years before the abaca matured. The average annual yield in Davao was nearly 1,100 pounds per acre, more than twice the yield of Visaya and five times that of Bicol. Ninety percent of the fiber grown in the Davao area was stripped on small poweroperated machines known as hagotans, cutting production costs and yielding a good grade of fiber of uniform quality. The methods employed in Davao produced abaca fiber that set the standards in markets all over the world.

#### Postwar Status of the Industry

When hostilities ended in 1945, it was found that the abaca industry could not proceed from the point where it had been in 1941. Plantations that were



Stripping abaca on small machines, common on large plantations, produces fiber of uniform quality.

flourishing at the beginning of the war were in poor condition. In Bicol and Visaya the area planted to abaca had been reduced to create space for food crops, and since the war the high price of food caused the emphasis to continue on food crops at the expense of abaca. Plantings that survived had been neither harvested nor tended since markets for fiber were non-existent. Conditions that for years had been causing a decline of the industry in those areas were still operative. Throughout the Islands, high prices for abaca did little more than stimulate stripping and did not serve to increase plantings.

In Davao also the industry was in poor condition. Here there existed a complex situation caused by the evacuation of the Japanese and the loss of the coordination, capital, and technical skill that they had given the industry. The majority of the plantings had passed the prime of their productive life at the beginning of the decade. The new plantings needed to maintain production at the normal level were not made during the war. Moreover, the plantations had been untended and were fouled with rapidly growing vegetation and fallen stalks. These factors had a farreaching and depressing effect on subsequent fiber production since the existing stands, overaged and untended, were to be the only source of fiber in Davao during the years needed to bring new plantings into production.

With the return of peace, guerillas and other squatters moved into the plantations that were vacated by the Japanese. These people regarded the enemy property as legitimate war booty and proceeded to remove all stalks capable of commercial production without consideration for the long-range welfare of the plantations. The resultant overstripping had the effect of encouraging weeds and preventing natural reproduction through the growth of suckers; thus the basis of future production was severely damaged. Such abuse was widespread. Proper care of the plantations was rare. Little or no planting was done by these people. The guerillas and other squatters were illegal occupants, but they were also armed. Agrarian unrest could have occurred had forceful methods of eviction been adopted. The butcher harvesting illegally practiced by the squatters was paralleled by companies or individuals given temporary leases, which were cancellable on short notice. In either case the primary interest was to strip as much fiber as possible even though recovery of the industry was impeded.

The Government, recognizing the consequences of the abusive treatment of the Davao plantations, sought to inject some order into the fiber production of that area. The United States Alien Property Custodian controlled the Japanese plantations until September 1946 at which time they were transferred to the Philippine Government. Authority over the Japanese plantations on lands controlled by dummies rested with the Philippine Bureau of Lands. The expected rush of large investors did not materialize. In the last part of 1946 the Government revived the National Abaca and Other Fibers Corporation (NAFCO), which had been formed before the war, to restore order and rehabilitate the industry. NAFCO was burdened with the legal tangles and other details involved in the administration of the property. It also entered into the fiber market in competition with private dealers. In dealing with the illegal occupants of the land, NAFCO was generally defied, and some time passed before a workable plan was put into effect whereby title could be transferred to private ownership. This plan called for dividing the Japanese holdings into 25-acre plots and selling them to applicants eligible for homesteads. Payment over a 10-year period was required. Veterans and ex-guerillas were given preference in this matter and were allowed to participate to a limited extent in the administration of the program. Many thousands of acres of the more desirable land have been disposed of in this manner. In most cases the new owners reverted to subsistence-type farming with which they were more familiar. Abaca yields on such lands have been disappointingly small. The title to some of the remaining land is not clear, and, for various other reasons, progress in transferring all of the Japanese holdings to private ownership has been slow.

The shortage of capital constitutes a serious obstacle to the recovery of the abaca fiber industry. Practically all the buildings and equipment in Davao were destroyed during the war and large sums are needed to replace them. Cleaning old plantings and planting new areas on a scale sufficient to increase exports are both expensive due largely to the high cost of labor. The former alternative is the cheaper and would have the quicker effect, both in production and profits. Since there still remain vast areas of virgin land, the latter choice is feasible and indeed mandatory if Philippine production is to regain its former level. Native and foreign investors are hesitant to put money into Davao, however, due to the unsettled conditions and high labor costs. Their attention is directed to the more stable conditions and equally good climate in North Borneo and other areas to the south. Late in July 1949 the Philippine Government announced that a branch of the Rehabilitation Finance Corporation will be established in Davao to facilitate long-term loans to abaca planters. Effective administration of such a program may be expected to stimulate abaca production.

The lack of the technical skill that was furnished by the Japanese is having its greatest effect by changing abaca fiber production from an efficient plantation system into an adjunct to subsistence farming. The shortcomings that caused the decline of the industry in the Bicol and Visaya regions are now becoming apparent in large areas of Davao. It is not inevitable that such practices should continue indefinitely. That Filipino peasants are capable of efficiently producing good fiber was demonstrated by their performance

Table 1.—Philippine abaea production by regions, 1934–38 average and yearly 1946–48 [1 bale=278.3 pounds]

	Regions <sup>1</sup>						(Detal Dhilis			
Period	South Luzon (		Eastern Visa- yas (Samar and Leyte) Mindanao (Davao)		Total Philip- pine produc- tion					
1934-38 <sup>2</sup> 1946 1947 1948 1949 <sup>3</sup>	Bales 348, 319 89, 075 274, 442 200, 296 170, 000	22. 7 34. 5 34. 1	Bales 316, 290 44, 917 144, 285 158, 739 180, 000	11. 4 18. 1 27. 1	Bales 669, 946 258, 584 377, 467 227, 573 250, 000	65. 9 47. 4 38. 8	Bales 1, 334, 555 392, 576 796, 194	Per- cent of total 100 100 100 100		

<sup>&</sup>lt;sup>1</sup> The regional grouping has been modified so that the regions for which balings are recorded before and after the war may be approximately the same. Shown in parentheses are the major producing areas of the regions indicated.

Source: Baling reports, Philippine Department of Agriculture and Commerce, Fiber Inspection Service. Includes only bales inspected for export.

 $<sup>^2</sup>$  Average.  $^3$  Based on estimates for 1949 as well as production, January through April 1949.

under Japanese supervision. An effective Government-sponsored extension program could replace such supervision while permitting peasants to retain their independence. Such a program could stimulate production in all parts of the Philippines.

The present trend toward subsistence farming in Davao could also be reversed by inducing more systematic producers to develop the large areas of virgin land that are still available. Among other things, the inadequacy of the road system has retarded this. Most of the remaining areas are inland and cannot be reached by the existing facilities. It is not to be expected that planters will go into these areas nor that abaca fiber will come out until roads are built to facilitate the process.

There are no reliable figures on the area now planted to abaca in Davao. Much of the old land lies idle. It is estimated, however, that 25,000 to 30,000 acres of abaca may have been set out on old land since liberation and that no more than 10 to 15 percent of the former 141,000 acres of the Japanese lands are in good condition. A few well-financed growers unaffected by land disputes have cleared their land and have repaired the damage. There is only one large-scale plantation now operated privately. This belongs to an American corporation. It is not likely that production will be restored to its previous level until the planted area is expanded to include much of the remaining virgin land.

The output of fiber since liberation has been far below the annual prewar average of 1,334,555 bales. Production is now less than half that of prewar, and it is doubtful if it will rise in the next few years. Taking the bales inspected for export as a gage of production, the 1946 output was less than 30 percent of prewar. In 1947, production increased to almost 800,000 bales, or 60 percent of prewar. Only 586,608 bales were produced in 1948, and production in 1949 is not expected to exceed 600,000 bales. The rise in 1946 and 1947 was the result of overstripping and was obtained at the expense of future production. This is evidenced by the subsequent dccline in 1948.

Reference to the accompanying table will reveal the decline in the production in Mindanao, to which Davao is by far the major contributor. During the prewar years, this area produced more than 50 percent by weight of the total Philippine output. Due largely to overstripping, production increased to almost 66 percent of the total in 1946 and then declined to less than 39 percent in 1948. According to current estimates, Davao's production may recover slightly

this year. Progress is expected in Davao as the settlement of lands continue and as farmers are given title to the land they till. However, Douglas Crawford, Agricultural Attaché in Manila, reports that there are not even estimates as to when the prewar rate of baling will be achieved. The output of southern Luzon is expected to continue its decline during 1949 but to remain at a little more than a fourth of the Philippine total. The Eastern Visayas is the only region in which an increase, both quantitative and percentagewise, is to be noted. In those areas where peasant-type farming predominates, production has been and will continue to be affected by changes in price of fiber compared with that of other products, notably food crops.

Fiber exports have decreased markedly from the prewar level, thereby depriving the country of much needed foreign exchange. Average annual exports in the period 1935–39 were 1,327,886 bales. Exports in 1947 were 752,704 bales and 594,724 in 1948. Of the original five cordage plants only two remain. Annual exports of domestically manufactured cordage dropped from a prewar average of 8,497 short tons to 2,189 tons in 1946 and increased to 4,255 in 1948. The decline in exports of fiber and cordage is a serious loss, especially in view of the slow recovery of the sugar industry and the problems facing copra producers.

Events since the end of the war suggest that the Philippines may be losing their dominant position in the cordage-fiber trade. Before the war, they produced 97 percent of the world's supply of Manila hemp. Most of the remainder came from Indonesia. The Philippines' share of the world's output fell to 78 percent in 1948. Abaca fiber is preferred for its resistance to hard wear and water, but there will always be price competition between it and the other important cordage fibers, sisal and henequen. The most serious threat to the Philippine product, however, is to be found in increased production of abaca in other areas. Central America enlarged its annual production from 200,000 pounds shortly before the war to more than 40 million in 1948. From Indonesia, it is reported that abaca production is recovering faster than the other hard fibers. Large-scale development is definitely under way in North Borneo. Ecuador, Burma, Martinique, and British Malaya now produce abaca, if only on a small, experimental scale. The Philippines are still the only major source of abaca, but the seeds of competition have been planted. It is conceivable that, in the period when Philippine industry is recovering, other countries may rise to challenge its monopoly on the production of Manila hemp.

### ERP Aids Europe's Farmers



Jeep- or tractor-drawn, modern rubber-tired farm wagons, imported under the European Recovery Program, are popular in Denmark. Of 3-ton capacity and easy to handle, these wagons—usually made in Europe now—are replacing small-load, old-fashioned wagons and expediting work on many Continental farms.



This French family's tractor will mean shorter hours and greater output. The European Recovery Program has enabled France to supplement its tractor output with imports from the United States. French factories could not meet the demand, and there were insufficient dollars for United States equipment.



Helicopter, purchased under the European Recovery Program by a French agricultural cooperative, is the first to be used in France for dusting crops to control insects.



Economical of his fertilizer, this farmer distributes it by hand. The European Recovery Program has helped European farmers obtain fertilizer to increase yields



This tractor will replace two horses and provide more efficient draft power for its Danish owner. Small tractors, procured through the European Cooperation Administration, are particularly suitable for use on Europe's small farms.

### Postwar Shifts in U. S. Agricultural Export Trade

by G. N. CHUMLEY



United States agricultural exports of 1948 were distributed quite differently among foreign markets than were those of prewar. One of the most

striking changes was the decreased importance of the United Kingdom. In 1938, it accounted for 35 percent of all United States agricultural exports; in 1948, it took only 6 percent. On a value basis, exports to the United Kingdom dropped from \$290 million to \$203 million, although prices increased sharply as indicated by the fact that agricultural exports to all countries increased from \$828 million to \$3,420 million, or 313 percent, while the index of quantity increased only from 67 to 91—36 percent. The decreased exports to the United Kingdom were caused by Britain's endeavor to balance its payments with the dollar area by curtailing imports and stin ulating exports.

Grain exports to the United Kingdom showed the largest decrease, falling from \$50 million in 1938 to \$100,000 in 1948. Exports in 1938 were at the highest levels of the 1930's as a result of several factors. Among these were a reduced production in Canada, favorable production in the United States, and a program to indemnify United States exporters of wheat and wheat flour for losses. In 1948 the United States sent more than half of its record grain exports to countries of the European Continent where, under stress of the food emergency, cereals were highly important in the population's diet. At the same time the United Kingdom's market was supplied by grain received from Canada under long-term contract and by bulk purchases of wheat in Australia and some other countries.

Export of fruits to the United Kingdom, which in prewar years was by far the largest market, declined from \$44 million in 1938 to \$3 million in 1948. In 1938, meat exports totaled \$18 million and lard \$11 million, but these exports were unimportant in 1948. Tobacco exports to the United Kingdom by value were well maintained, amounting to \$90 million in 1948, compared with \$111 million in 1938 and about \$85

Mr. Chumley is International Trade Economist, OFAR.

million for the 1935–39 period. In terms of quantity, however, there was a substantial decline.

The United Kingdom, like most other countries, curtailed buying of United States cotton in 1938 pending introduction of the cotton export subsidy. This resulted in the unusually low exports of \$42 million in 1938, compared with \$72 million in 1948. On the basis of average cotton exports in 1935–39, however, there was little change in value in 1948 although quantity declined by almost two-thirds.

Exports of dairy products to the United Kingdom, by contrast, amounted to \$29 million in 1948, compared with less than half a million in 1938.

While the United Kingdom's proportion fell, other countries of the European Recovery Program took a much larger share of United States agricultural exports, increasing from 29 percent in 1938 to 55 percent in 1948. In value the increase was from \$236 million to \$1,864 million. This increase resulted chiefly from heavy food shipments under the various United States programs of foreign assistance.

Before the war, cotton was the principal agricultural export to the ERP countries (except the United Kingdom) and amounted to \$101 million in 1938. The next largest exports were grains, amounting to \$89 million, and tobacco, amounting to \$18 million. In 1948, exports of grains were by far the most important—\$1,080 million. There were also large exports of fruits, especially raisins and prunes to Germany and Austria, fats and oils, soya flour, and shelled peanuts. Exports of cotton were \$240 million and

Table 1.—Outlets for United States agricultural exports, 1938 compared with 1948

Market	1938	1948	Increase (+) or de- crease (-)	1938	1948
United Kingdom Other ERP countries Canada Latin America Others	Million dollars 290 236 94 60 148	Million dollars 203 1, 864 136 430 787	Million dollars -87 +1,628 +42 +370 +639	Percent of total 35 29 11 7 18	Percent of total 6 55 4 13 22
Total.	828	3, 420	+2,592	100	100
Quantity index (1924-29=	67	91	(+24 points)		

exports of tobacco were \$66 million in that year.

The share of Latin America in United States agricultural exports in 1948 amounted to 13 percent, or nearly twice as much as in 1938. The value of exports to that area increased from \$60 million to \$430 million.

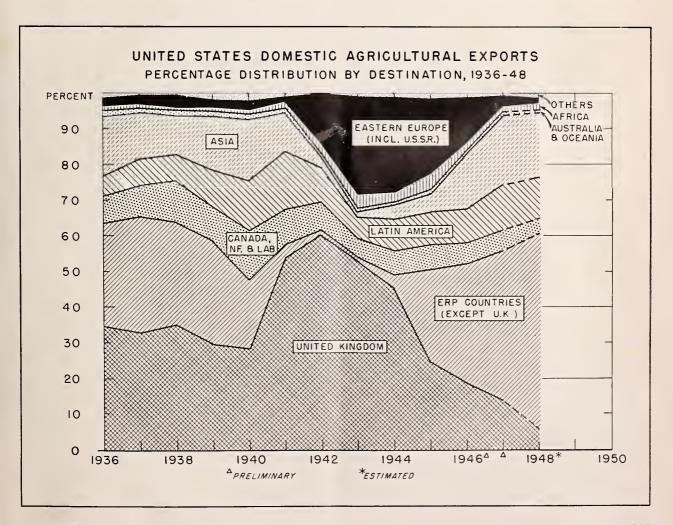
Canada, which experienced a shortage of dollars as a repercussion of the United Kingdom situation, declined in importance as a market, taking 11 percent of all United States agricultural exports in 1938 and only 4 percent in 1948. By value, United States agricultural exports to Canada increased from \$94 million to \$136 million, accounted for by price increases rather than by increases in quantity.

United States foreign assistance programs have been extremely important in the maintenance of high levels of agricultural exports. In 1948, approximately half of all United States agricultural exports were financed by such programs. Most important of these were shipments by the Economic Cooperation Admin-

istration (reported on the basis of incomplete statistics as \$725 million) and exports under the Army Civilian Supply Program of about \$820 million. In addition, agricultural exports were financed by such other programs as Greek-Turkish Aid and Interim Aid.

United States assistance made possible the large increases in value of exports to Germany, Japan, France, Italy, Austria, China, Greece, Belgium, and the Netherlands. In the case of the United Kingdom, United States agricultural exports would have dropped even more without ECA assistance. In addition to its direct effect, United States assistance supported its markets indirectly in India, Canada, and some other areas.

Agricultural exports to India increased as a result of that country's obtaining dollars out of the British dollar pool. The dollar releases to India and other sterling-area countries were made possible largely because the United Kingdom has been receiving large amounts of dollars through the United States loan



and through ECA. Exports to Canada were higher than would have been the case had that country not received dollars as a result of ECA offshore purchases on behalf of the United Kingdom and of Western Europe.

Improved dollar position has been the most important cause of high levels of United States agricultural exports to a number of countries of Latin America and to the Republic of the Philippines. Cuba and several other Latin American countries accumulated dollars as a result of heavy wartime purchases in the area by the United States. Moreover, since the war, the United States has maintained high imports from Latin America. The Republic of the Philippines has received dollars as a result of United States payments for war damages in addition to its receipts from trade with the United States.

Table 2.—United States agricultural exports by countries, 1938 and 1948

1000 and 1040						
Country	1938	1948 1	1938	1948 1		
Western Hemisphere:	1,000	1,000	Percent	Percent		
Canada (excluding Newfoundland	dollars	dollars	of total	of total		
and Labrador) American Republics:	93, 664	135, 512	11.3	4.0		
Mexico.	7, 179	59 076	0	1.0		
Central American Republics	5, 585	53, 876 24, 068	.9	1.6		
Cuba	20, 999	130, 617	2.5	3. 8		
Argentina	1,790	4, 662	. 2	.1		
Bolivia	398	5, 616	.1	. 2		
Brazil	1,704	60, 740	. 2	1.8		
ChileColombia	1,409	6, 487	. 2	. 2		
Peru	2, 916 629	14, 515 9, 864	. 4	. 4		
Venezuela	5, 257	67, 863	. 1	2.0		
Others.	2, 288	15, 316	. 3	2.0		
	2,200	10,010	. 0	. 4		
Total	50, 154	393, 624	6.1	11.5		
Netherland Antilles	1,741	9,954	. 2	. 3		
Other Western Hemisphere	10, 217	34, 467	1.2	1.0		
Total Western Hemisphere	-					
Total Western Heinisphere	155, 776	573, 557	18.8	16.8		
Europe:						
ERP countries:						
Austria 2	54	123, 996		3.6		
Belgium	33, 239	100, 609	4.0	2.9		
Denmark	10, 169	17, 189	1.2	. 5		
France Germany <sup>2</sup>	38, 970	237, 963	4.7	7.0		
Greece.		767, 327	4.4	22.4		
Italy	2, 695 21, 829	101, 939	. 3	3.0		
Netherlangs	43, 994	256, 426 123, 834	2.6	7. 5		
Norway	6, 625	24, 567	5.3	3.6		
Portugal	4, 406	30, 449	. 5	. 7		
Sweden	11, 865	10, 581	1.4	. 3		
Switzerland	2 286	43, 728	. 3	1. 3		
United Kingdom	289, 865	202, 927	35.0	5. 9		
Others.	23, 875	25, 873	2.9	. 8		
Total 3	526, 237	2,067,408	63.6	60. 5		
Eastern Europe:						
Czechoslovakia 2	13,776	6,904	1.7	. 2		
Finland	3,691	7, 791	. 4	. 2		
Poland and Danzig		23, 876	1.4	. 7		
USSR	18	798				
Yugoslavia Others	1,069	4, 380	. 1	. 1		
O OLIOI S.	2,040	5, 983	. 2	. 2		
Total 4	31, 948	49, 732	3.9	1.5		
Other Europe	882	4.050				
		4, 276	.1	. 1		
Total Europe 3	558, 850	2, 120, 352	67. 5	62.0		

See footnotes at end of table.

Table 2.—United States agricultural exports by countries, 1938 and 1948-continued

Country	1938	1948 1	1938	1948 1
	1,000	1,000	Percent	Percen
Asia and Oceania:	dollars	dollars	of total	of total
Western Asia, including Turkey	1,215	24, 984	0.1	0.
Far East: China	10,076	111, 859	1.2	3.
India		f 81, 333	.7	2.
Pakistan	6,058	2, 667		
Hong Kong	2,867	9,886	. 3	.:
Japan	36, 483	$\begin{cases} 259,275 \\ 36,932 \end{cases}$	6.8	7-1
Korea				1.
Indonesia Philippines, Republic of	1, 311 10, 404	21, 226 76, 351	1.3	2.
Australia	9,900	13, 790	1.3	2-
New Zealand	2,353	3,327	. 3	
Others	5, 597	15,065	.7	
Total	105, 049	631, 711	12.8	18.
Total Asia and Oceania	106, 264	656, 695	12.8	19.
A frica:				
Algeria	160	17,044		
French Morocco		3, 562		
Western French Africa, total 5		6, 710	. 1	
Belgian Congo	. 120	3, 017		
Western British Africa, total 6	2,003 1,611	7, 412 5, 552	. 2	i :
Union of South Africa	975	17, 759	.1	:
Others	763	8, 523	.1	
Total	6, 657	69, 579	.8	2,
Grand total	827, 546	3, 420, 184	100.0	100.
British Commonwealth, Egypt, and Ireland	441, 900	526, 121	53. 4	15.

Data for 1948 estimated from preliminary export statistics.
 Trade with Austria beginning May 6 and with Sudetenland beginning

Trade with Austria beginning May 6 and with Sudetenland beginning November 10 with Germany in 1938.
 ERP total includes Turkey, Iceland, Ireland, and Trieste in addition to the countries shown. Turkey not in European total.
 Includes Albania, Bulgaria, Estonia, Hungary, Latvia, Lithuania, and Rumania in addition to countries shown.
 Includes Cameroon, French Equatorial Africa, French West Africa, and in 1938 French Somaliland.
 Includes Gold Coast, Nigeria and other British West Africa.

Note,-Totals do not always add to the exact figures shown due to rounding.
Source: Published data of Bureau of Census.

### First International Sesame Conference

By HENRY M. SIMONS, Jr.

Scientists are constantly working to increase the world's supply of fats and oils. A recent report on progress in that field came from the First International Sesame Conference held at Clemson College, S. C.

Here it was reported that sesame, produced chiefly in Asia and Africa for use as a cooking oil, is one of the most promising oilseed crops for the Western Hemisphere. Production in El Salvador increased from

Mr. Simons is Assistant Agricultural Editor, Clemson Agricultural College, Clemson, S. C.

nearly 10,000 bushels in 1945 to more than 200,000 in 1948. And in Venezuela, Dr. D. G. Langham, head of the Department of Genetics and Agronomy of the Ministry of Agriculture, has developed the first non-shattering sesame plant. This is particularly significant to the United States because only such a plant lends itself to mechanical harvesting.

The chemical and industrial development of sesame is proceeding simultaneously with the agricultural phases of the research program. This was pointed up by the attendance at the Conference of representatives of the oilseed crushing industry and the chemical industry as well as the United States Department of Agriculture's industrial chemists who are conducting tests with sesame oil and its constituents at the Southern Regional Research Laboratory in New Orlcans.

Delegates to the conference were impressed with the need for a concerted attack in order to launch sesame into full-scale commercial production. To do this, they were warned, will require tcamwork between plant breeders, agronomists, plant pathologists, and agricultural engineers, as well as the combined efforts of the oilseed crushers and the chemical industry.

In presenting any new crop, it was pointed out, new fungicides and insecticides are needed to fight new pests and diseases, and new cultural practices and fertilization methods may be needed. Markets often have to be developed for new crops, but in the case of sesame a market for the oil already is in existence, provided the crop is raised in sufficient volume to make processing worth while. Annual world production is now estimated at 1,500,000 tons, with China furnishing more than half the total.

The need for further agricultural research with sesame was stressed, along with plant exploration in those countries where scsame has been grown for centuries in order to seek superior germ plasm for new breeding lines. In any successful commercial variety, many desirable characteristics must be combined, such as high yield, adaptability to mechanical harvesting and climate, disease and insect resistance, high oil content, and other less important factors. Most of these factors already exist together in several varieties. The chief aim of the scientists at present is to combine them with the nonshattering characteristic that will make mechanical harvesting possible.

Delegates were invited by the Government of Venezuela to have their next annual conference in that country. The invitation was accepted, and the conference will be held there next year.



Delegates to the Sesame Conference inspect a sesame planting at South Carolina's Experiment Station. Left to right, D. G. Langham of Venezuela, N. K. Sen of India, now with the University of California, and V. S. Chhonkar, graduate student, Ohio State University, also from India.

# Italian Cooperative Cold-Storage Plant

by HAROLD L. KOELLER



The problem of spreading out the marketing season for perishable produce, to the benefit of producers and consumers alike, is being met in northern Italy's

Ferrara Province through increased use of modern cold-storage facilities. An outstanding example is the new cold-storage and fruit-packing plant of the Consorzio Agrario Provinciale, a cooperative owned by some 7,000 farmers. About 1,000 of these farmers are fruit growers who are using the cooperative's facilities in marketing their fresh produce.





The Consorzio's cold-storage and fruit-packing plant and one of the cold rooms.

The Consorzio's cold-storage and fruit-packing plant is not the only one in Italy, but I am informed that it is the country's largest, most modern cold storage used exclusively for fruits and vegetables. It is a new plant, built after the old one was destroyed during World War II. Under the able leadership of Dr. Fernando Resca, director of the Consorzio, this new million-dollar establishment was built in 2 years. Italian materials, machinery, equipment, engineering, and financing were combined to produce a beautiful, functional plant. It was used to handle 1948 crops before it was entirely completed, and some of the work on the building, such as putting cork insulation inside a part of the cold rooms, was still being done when I visited the plant in July 1949.

The exterior of the gleaming white plant makes a favorable impression on a visitor as does the order and cleanliness inside. The building proper is 197 feet long and 121 feet wide. The refrigerated loading room, adjoining one side and designed to accommodate four railway cars for loading and icing, is 154 feet long. There are four floors and a basement; most of the building can be refrigerated. The cold-storage rooms, or cells, are designed to hold 4,000 metric tons of fruit, and a total of well over 5,000 tons (about 230,000 bushels) can be stored at low temperatures by utilizing additional space.

The ground floor of the building is used for sorting, grading, and boxing the fruit. Apples, pears, and peaches are run through machines with brushes that dust, clean, and shine them, then through sorting machines where workers pick out defective fruit, and finally through size-graders. The fruit is then packed and placed in two small cold-storage rooms on this floor. From these, it is transferred to the floors above by electric elevator to be stored at from one to four degrees above freezing or moved into rail cars in the loading room just beyond them. For export the fruit is packed in "California-type" boxes of about 45

Mr. Koeller is Acting Head, Agricultural Machinery and Supplies Division, International Commodities Branch, OFAR.

pounds, but closed crates holding nearly 18 pounds are generally used for the domestic market. When shipping such perishables as strawberries, peaches, plums, cherries, or pears, an average of 16 cars a day are loaded. When handling less perishable produce, as many as 50 cars a day can be loaded.

The second floor of the building consists of four large cold rooms and a central hallway. The refrigerating machinery, electrically operated, is also located on this floor above the car-loading room. In case of failure of the supply of outside electricity, generators driven by Diesel motors can keep the plant functioning. Pipes lead from the compressors to cold chambers adjoining each cold room. The chilled air in the cold chambers is blown by fans through ducts to all parts of the cold rooms thus assuring an even temperature. This system also eliminates the necessity of having refrigerating pipes in the cold rooms and makes better use of space. Ice is produced by the refrigerating equipment and stored in long blocks for use in the refrigerator-type rail cars when perishable fruit is shipped.

The third floor of the plant consists of cold rooms, and the top floor is used mainly for storing empty boxes, crates, sacks, and other supplies.

In 1948, some 4,500 metric tons of apples, 500 tons of pears, and a few tons of peaches were placed in the Ferrara cold storage. (1 ton of 2,204.6 pounds is equivalent to about 45.9 bushels of fruit.) That year the Consorzio sold 800 tons of fruit in England, 100 tons of apples in Palestine, 100 tons of apples in Belgium, and 20 tons of pears in Switzerland. The rest was sold domestically. In all, about 10,000 metric tons of fruit and potatoes were marketed.

Before the war, from 70 to 80 percent of the fruit produced in Ferrara Province was exported to Germany, according to Dr. Resca. Since the war, however, only 2 to 3 percent of the Provincial fruit crop has gone abroad. Of this the Consorzio has shipped about one-half. If foreign sales increase, the Consorzio will have equipment and plants capable of exporting up to 60 percent of the average Provincial production since it is building two cold-storage plants in other cities of the Province with a total capacity of 4,000 tons.

To make better use of plant facilities, spread overhead costs, and provide another service to farmers, the cooperative also handles potatoes. They are sorted, boxed, and stored in the basement. These operations do not interfere with fruit packing since they are carried on at a different time. During the war the Consorzio handled as many as 20,000 tons

(735,000 bushels) of potatoes during one season, half of which were exported. At present only one-tenth that quantity is sorted and sold and none are exported.

In addition to the fruit and potato marketing the Consorzio buys and sells grain, seed, feed, fertilizer, pesticides, farm machinery, fuel, and lubricants. It acts as the agent of the Italian Government in buying that part of the wheat that farmers are obliged to consign to the Government grain pool at fixed prices. The Consorzio buys about 70,000 metric tons (more than 2.5 million bushels) of wheat annually from farmers in the Province. It sells about 50,000 metric tons of fertilizer and pesticides annually and about 10,000 tons of feed and seed.

The agricultural machinery section sells all kinds of farm machines and implements, including about 250 tractors annually. It has a repair shop, well equipped to serve farmers and keep their machinery in good working order. The Consorzio also supplies farmer members with some 5,000 tons of fuel and lubricants each year.

Such services as the cooperative offers are particularly important in an area like Ferrara Province, one of Italy's principal agricultural regions and one of its newest. Until recent times, most of this part of the Po Valley was marshland and unfit for agriculture, but drainage and land improvement have put it into production. This work is being continued by the reclamation (bonifica) societies with assistance from ECA counterpart funds. As the farming area of Ferrara Province grows in size and importance, there will, no doubt, be an increasing demand for the services of the Consorzio Agrario Provinciale.



World Crops: Their Cultivation, Protection, Storage, Handling, and Processing for Food, Fodder, and Industrial Products. Leonard Hill Limited. 17 Stratford Place, London, W. 1, England. \$5 a year. This new monthly magazine, edited by Sir Harold Tempany, an expert in crop production in the British Colonies, presents developments and trends in world agriculture, which should be of interest not only to farmers, farm organizations, and technicians but also to chemists, engineers, and others. The first number, 40 generously illustrated pages, issued in September 1949, includes a discussion of the rice situation, the future of cocoa, oil palms, tobacco in the Common-

wealth, science and the soil, sorghum in Queensland, fertilizer placement, reclamation of the Dutch island of Walcheren, and world crop reports.

### Pasteurized Milk Produced in Portugal

By CHARLES J. KOLINSKI GEORGE CONSTANTINIDES

Pasteurized milk is now for sale in Lisbon, capital city of Portugal. To United States consumers whose milk supply has been pasteurized and carefully inspected for years, such an announcement in the year 1949 seems belated. But the inhabitants of all Portuguese cities, like those of most European urban centers, have always used raw milk, purchased in bulk from door-to-door distributors or from street vendors who hawk milk much as newspaper boys in the United States sell their papers. Street vendors buy the milk from individual truck owners or trucking companies who, in turn, bring in fresh milk from the farms to distribution centers in the city each morning.

This system of milk distribution has been the cause of some concern in Lisbon for many years, both by private citizens and municipal and Government health authorities. Little effort has been made to verify the purity of milk for human consumption, and the possibilities of its being impure are manifold. Nevertheless, this manner of milk distribution is the source of employment for a great many people, and, for lack of better facilities, the traditional method is countenanced.

When the first pasteurized milk was introduced to Lisbon consumers about 25 years ago, it was not popular. But a new firm, established early this year to pasteurize milk for sale in the city and its suburbs, reports that sales have been steadily increasing. Daily production is now about 2,000 quarts. This figure represents only a small proportion of the milk consumed in the city of Lisbon and will probably not increase substantially until the price of pasteurized milk becomes more competitive. At present, raw milk costs about half as much as the new product.

Mr. Kolinski is Assistant Attaché and Mr. Constantinides is Mail Clerk, American Embassy, Lisbon.

By Government regulation, the pasteurized milk can be sold to the public only in commercial establishments that can keep it refrigerated. Eligible places usually are tea shops, confectionery and candy shops, bakeries, and soft-drink stores.

## Agricultural News

#### Freezing Tests Made on Mangos

The mango may some day be added to the long list of frozen fruits and vegetables available in United States markets the year around. Results of experiments conducted by Harry A. Allard, plant scientist, formerly with the Department of Agriculture and his son, Howard, now with the Department, show that the fruit can be kept in frozen storage over a period of time and, when thawed, retain eating qualities comparable to those of the fresh fruit.

The mango, a pear-shaped fruit with a thick rind and a fibrous juicy pulp, has long been popular in the Tropics. Only within recent years has it been introduced to United States consumers. It has not yet won the popularity of such other tropical fruits as the banana, the pineapple, and the avocado.

The Allards carried out their freezing tests in the Dominican Republic, using the criollo type, which grows all over the island of Hispaniola and has considerable fiber, and two excellent selected commercial types, the *Bani lejo* and the choice *Fabrico*.

Five or six fruits of each variety were placed in a refrigerator and kept at a temperature of 20° F. for 5 months. They were then removed and thawed. The fruit was somewhat softened by freezing but the flavor changed little. Since this excellent fruit can be frozen successfully, it could be available out of season as are many of the temperate region fruits.

#### East African Herbarium Established At Nairobi

A herbarium is being constructed at Nairobi, Kenya, to be the reference center of all East African plants. The new building will be completed early next year and will incorporate the existing herbariums in the Coryndon Museum at Nairobi and the larger one at Amani, Tanganyika.



#### Mr. Striker Awarded Panamanian Decoration

Marion M. Striker, United States Department of Agriculture soil scientist, was recently awarded the Order of Balboa in the grade of knight by the Government of Panama. The decoration was in recognition of the outstanding soil survey work Mr. Striker had done and the good will he had created while serving as a member of the United States Agricultural Mission to Panama.

#### Windmills on Trial in India

Six experimental windmills are to be set up at widely separated places in India to harness the wind and use its power to irrigate the land. Under recommendation of the Central Water Power, Irrigation, and Navigation Commission, the Government plans to place windmills at Allahabad, Ahmedabad, Belgaum, Coimbatore, Delhi, and Poona.

At the windmill stations, experts of the Indian Meteorological Department will collect data on wind velocity and the number of hours the windmills can be worked. Representatives of the Agriculture Ministry will record facts on irrigation effected daily.

The experiments are expected to show to what extent windmills will be suitable for small-scale irrigation in the country.

This experiment by the Government of India is a direct result of suggestions made in two articles by

Clifford C. Taylor, United States Agricultural Attaché, published last spring by the United States Information Service in Bombay.

#### Dominican Republic Plans Sisal Project

The Dominican Republic plans to increase its sisal production to help meet the requirements of the Government-owned bag and cordage factory. Sisal fiber used in the factory comes from Haiti, but supplies have not been large enough to keep it operating at full capacity. The plan is to plant about 1,000 acres of sisal in the semiarid region west of Santiago. Dominican officials hope that most of the Republic's sisal requirements will eventually be supplied from this planting.

#### Blueblood Goats From United States To Bolster Ecuadoran Breed

Eighty registered goats purchased from United States herds have recently been flown by special plane to Ecuador to serve in the livestock and diet improvement program of the Ecuadoran Ministry of Economy. The goats have been distributed to breeding centers throughout the country, and the Ecuadoran Government, pleased with the first shipment, has ordered 200 more animals.

Heading the Anglo-Nubian list is "Chickaming Crispin Allegra," 8-month-old prize goat from the North Carolina herd of Poet-Biographer Carl Sandburg.

The Anglo-Nubian breed is noted for its excellent foraging ability, compact size, and, according to goat lovers, its beauty. The animals are economic producers of milk and butterfat. One of the goats flown to Ecuador reportedly has a production record of 15 pounds of milk per day.



